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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,839	12/31/2001	Sadeg M. Faris	VRex-0023USAAON00	4192

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07/21/2003

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EXAMINER

CHANG, AUDREY Y

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,839

Applicant(s)

FARIS ET AL.

Examiner

Audrey Y. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the features recited in claims 1-3 in particular the a plurality of phase difference film, a plurality of grooves, and display member must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: “adhesive 4”, “display member 5”, and “resin 6”. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph**, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification and the claims fail to describe how could the film having resin portion set to right eye image display portion and polarized portion set to left-

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eye image display portion is capable of forming 3D image display. The resin portion will not provide any coding scheme to make the right-eye image to go to right eye only, which is an essential criterion for the three dimensional effect to occur.

5. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification and the claim fail to teach adequately concerning the plurality of grooves and how is related to the rest of the element for the three dimensional image display to take place.

Claim Objections

6. **Claims 1-3 are objected to because of the following informalities:**

(1). Regarding claims 1-3, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

(2). The phrase "the optical axes therefore cross one another" recited in claims 1-3 are confusing and indefinite since it is not clear if this means the PVA film having different polarization state at different regions? It is not clear how could the PVA film being *stretched* to have different polarization directions to occur in the film.

(3). The phrase "*appropriate* synthetic resin" recited in claims 1-3 are confusing and indefinite since it is not clear what is considered to be "appropriate".

(4). The phrase "phase difference film" recited in claims 1-3 are confusing and indefinite since it is not clear what does this phrase really mean.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Faris, (please PN. 5,327,285).**

Faris teaches a *micropolarizer* (Figure 1), which can be used with spatially multiplexed image elements in a 3D stereo display system, (please see column 1). The stereoscopic viewing is enabled by having the *micropolarizer* (1, Figure 1) with mixed regions of *orthogonal polarization states* (P1 and P2) that are aligned with the spatially multiplexed left and right eye image respectively such that the right eye and left eye image are then coded with orthogonal polarization states (P1 and P2), (the spatially multiplexed left and right eye image therefore serves as the left eye and right eye image *display portions*), respectively, and then with the help of a spectacle the left and right eye images could be viewed by left and right eye respectively of an observer. Faris teaches that the *micropolarizer is manufactured by laminating a PVA film* (5, 10 or 68, in Figures 2-3 and 6a), which could be a *linear polarizer, with a CAB or TAC film* (4 or 69) that together serve as the *laminated phase difference film*. Faris also teaches that the specific portions of the laminated polarizing film may be cut away by using a *diamond cutter* (66, Figure 6a) so that a plurality of grooves extending from a first side of the polarizing film with respect to the second side are formed, (please see Figure 6a and column 4, lines 24-30). The plurality of grooves are then corresponding to patterned regions of linear polarizer.

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Faris teaches that the laminated phase difference film is formed by laminating a polarizing film (5) on a substrate (4). A photoresist layer (6) is placed on top of the polarizing film (5) so that different region of the film may be exposed and acted upon to produce patterned polarization regions on the polarizing film. Faris teaches that the polarizing PVA film may also be cut away as shown in Figure 6a, to form the patterned micropolarizer. However this reference does not teach explicitly to fill the cut away region with resin. But such modification does not change the function of the patterned micropolarizer for creating the stereoscopic display of the image and it is considered to be obvious matter of design choice for one skilled in the art. Since it is one skilled in the art may be motivated to fill the space between polarization regions with resin to make the film with smooth surface as desired or for the benefit of making it easily adopted to other optical element.

Faris also teaches an embodiment for allowing the display of stereoscopic image by having a patterned linear polarizer (40, Figure 10) place on top of a circularly polarizer (41), to create micropolarizer regions having circularly polarization that are orthogonal to each other in accordance with left eye and right eye image display portion.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 703-305-6208. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

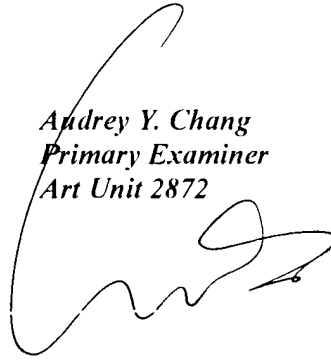
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 703-305-0024. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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A. Chang, Ph.D.
July 10, 2003

Andrey Y. Chang
Primary Examiner
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A handwritten signature in black ink, appearing to be 'A. Chang', written over the typed name and title.